

# Total (100%) and speedy crimped terminal image inspection

## Crimp Vision Monitor CVM-3

### Crimped Terminal image inspection inline system

#### High-speed shuttering & accurate image position alignment

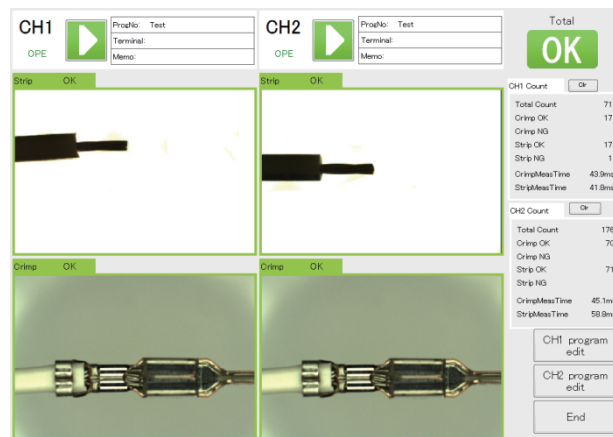
This system has enough capability to follow the feeding speeds of your crimping machines. Thanks to LED strobe lighting with high shutter speed (1/60,000 sec), this system can capture clear images. And it can adjust image positions quickly and precisely and put measurement frames on right places. Outputting an inspection result takes only up to 100m sec.

#### Good sample learning function

This system can store up to 50 images and make a master picture. This function allows neglecting the differences between good samples in a smart way. It can accurately detect defects of insulation barrels and wire barrels.

#### Suitable light for crimped terminal inspections

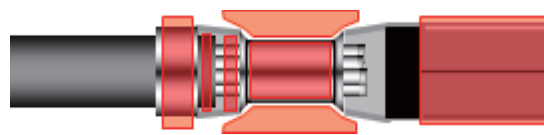
The special unique light for crimped terminal inspections allows capturing clear images with less glare, which enables the crimped terminals to be inspected correctly without being influenced by outer light.



- You have only to set a high shutter speed camera (a camera with a compact LED strobe) on the cable feeding route of an automatic crimping machine, which enables you to inspect all crimped terminals without stopping feeding.
- A suitable installation space in your machines allows retrofitting the camera in them. It inspects stripped wires on the forward path and crimped terminals on the return path.
- The item registration enables image processing tools suitable for the error you intend to check to be set automatically. For this, you have only to set the measurement frame on a part of a master picture. The learning function prevents good samples from being regarded as errors.

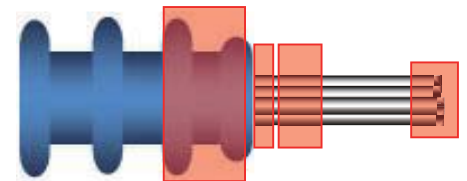
### Checking points

#### Crimped terminals



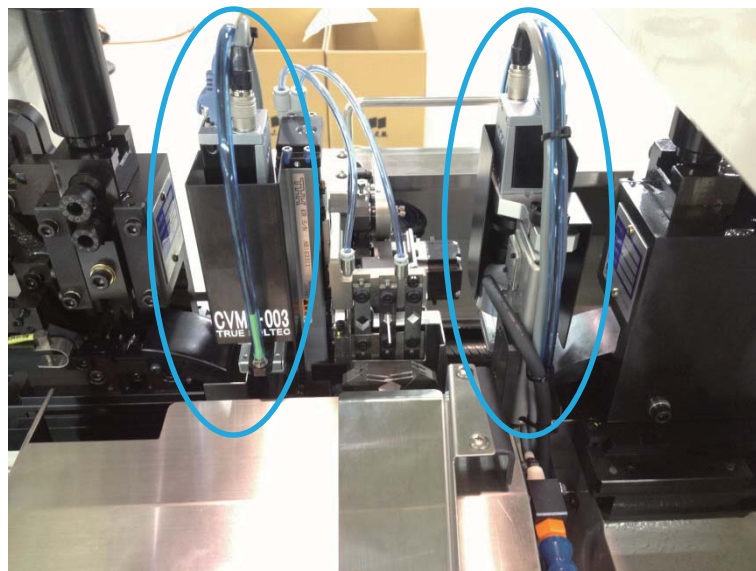
- Insulation barrel deformation (bent inside, bent outside, etc.)
- Wire barrel deformation (strands out extremely, overlapping strands, etc.)
- High insulation, low conductor
- Missing strands
- Others (cable colors, dimensions, etc.)

#### Stripped wires and inserted seals



- Stripped length
- Length of whisker
- End-open
- Seal insert errors (reversed insert, seal position, etc.)

## Installable for almost any existing automatic crimping machines



### Exclusive power supply unit (I/O box) working with automatic crimping machines

This unit controls I/O port to stop automatically your crimping machine in finding an error. It also controls shutter timing and delicate lighting of LED strobes.

One unit can control two cameras and four lights.

### Improving stripped wire inspection

A back light (optional) is available. Automatic machines feeding wire with reciprocating motion allow strip check on the forward path and crimp check on the return path. This checks not only whether wires were stripped, but also how wires were stripped; stripped length, length of whisker, end open, and others. Moreover, as for seal insert error, this can check shapes, directions, positions and others.

### Installable automatic crimping machines

Produced by Japan automatic machine co., Ltd.  
CPR-ZERO series  
JN07 IS series  
JACK

Note: Please inquire Japan automatic machine Co., Ltd. of which model in each series above is installable.

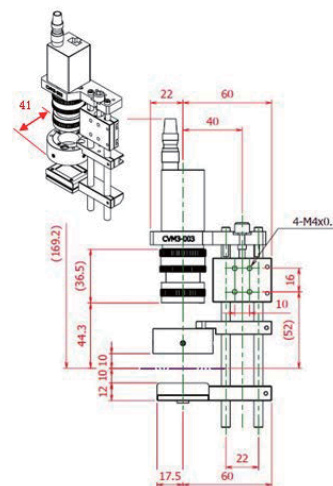
### I/O box specifications

Outer dimensions(WxHxD)	320 x 67 x 272 mm
Weight	2kg
Power supply	AC 100 to 240V 2A or less
LED output current	300mA to 12A variable
LED output time	No longer than 2ms
LED minimum lighting interval	100ms
LED output limitation	Both upper and lower lights cannot be lightened simultaneously (possible if not simultaneously)

### Specifications

Wire size	AWG26 to AWG10
Wire speed at camera shutter	2.5m/sec
Shutter speed	Max. 1/60000 second (0.0017ms)
Number of cameras	Up to 2 cameras
Camera CCD resolution	0.3 Mega pixels (color)
Judgment speed	40 to 100msec (shutter trigger to result output)
Items number for registration	Unlimited. It depends on the PC hard disc capacity. One item uses 100M bytes memory (approx.)

### Dimensions of Camera unit



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